

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
24 July 2003 (24.07.2003)

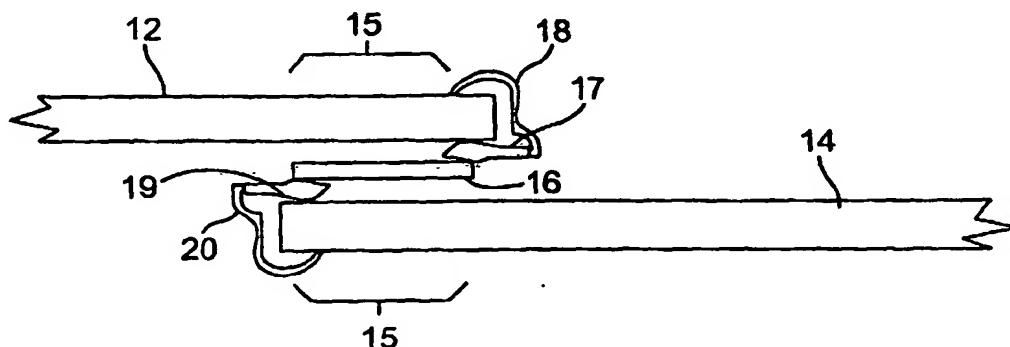
PCT

(10) International Publication Number  
**WO 03/059624 A1**

- (51) International Patent Classification<sup>7</sup>: **B32B 31/12**, 31/26
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- (21) International Application Number: PCT/US03/00536
- (22) International Filing Date: 9 January 2003 (09.01.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/346,277 9 January 2002 (09.01.2002) US
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- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:  
— with international search report

[Continued on next page]

(54) Title: METHOD FOR BONDING THERMOPLASTIC OR THERMOSET POLYMERIC MATERIALS UTILIZING VOLTAGE APPLIED TO CONDUCTIVE MATERIAL



(57) Abstract: A method for bonding or joining thermoplastic or thermoset polymeric materials is provided which comprises applying a layer of conductive material (16) at a joint or between surfaces of thermoplastic or thermoset polymeric materials (12, 14), introducing a current so as to raise the temperature of the polymeric material above its melting point, maintaining the current for a time sufficient to allow the polymeric material to become molten and thereby form the joint or bond, and then removing the current and allowing the joint or bond (15) to cool. The method is advantageous in that it provides a simple and inexpensive means of bonding thermoplastic or thermoset polymeric materials with a minimum of materials and equipment. The method of the present invention can also be utilized so as to heat thermoplastic pipes and other devices made of thermoplastic materials.

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/00536

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
IPC(7) : B32B 31/12, 26		
US CL : 156/196,272.2,273.9,274.4,277,308.2,308.6; 219/78.01,86.1,91.2,91.23,148; 403/270; 264/404,405,479		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols)		
U.S. : 156/196,272.2,273.9,274.4,277,308.2,308.6; 219/78.01,86.1,91.2,91.23,148; 403/270; 264/404,405,479		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,211,492 B1 (TANAKA et al) 03 April 2001 (03.04.2001), column 3, lines 19-31.	1, 16
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Y		2-13, 17-18
X	US 5,743,989 A (KUMAGAI et al) 28 April 1998 (28.04.1998), column 3, lines 35-64; column 4, lines 23-31.	1, 16
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Y		2-15, 17-18
X	US 5,779,843 A (KUMAGAI et al) 14 July 1998 (14.07.1998), column 6, lines 5-33.	1, 16, 17
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Y		2-14, 18
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"P"	document published prior to the international filing date but later than the priority date claimed	
Date of the actual completion of the international search		Date of mailing of the international search report
15 April 2003 (15.04.2003)		01 MAY 2003
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